

**IN THE CLAIMS:**

1. (Currently Amended) A system for cooling a processor, the system comprising:  
a heat sink assembly having a fan, ~~and walls, and a bottom surface, wherein the walls and bottom surface define~~ an air channel, and the heat sink assembly is configured to be thermally coupled to the processor; and  
a heat sink lid coupled to the heat sink assembly, wherein the heat sink lid is configured to leave a portion of the air channel uncovered and the heat sink assembly is further configured such that air flows directly from the fan along the bottom surface of the heat sink assembly.
2. (Original) The system of claim 1, further comprising a thermal adhesive disposed on an outer surface of the heat sink assembly for thermally coupling the heat sink assembly to the processor.
3. (Currently Amended) The system of claim 1, wherein the uncovered portion of the heat sink lid air channel ~~is configured to reduce~~ reduces air flow noise in the system during operation.
4. (Currently Amended) The system of claim 3, wherein the uncovered portion of the heat sink lid air channel ~~is configured to reduce~~ reduces air flow noise by preventing the formation of a standing wave within the air channel during operation.
5. (Currently Amended) The system of claim 4, wherein the uncovered portion of the heat sink lid air channel prevents the formation of the standing wave by preventing the reflection of an incident wave propagating within the air channel during operation.
6. (Original) The system of claim 3, wherein the heat sink lid includes an edge configured to reduce turbulent flow of air escaping from the air channel and flowing across the edge.

7. (Original) The system of claim 6, wherein the edge is substantially perpendicular to a direction of air flow within the air channel.
8. (Original) The system of claim 1, wherein the processor comprises a graphics processing unit.
9. (Original) The system of claim 1, wherein the processor comprises a central processing unit.
10. (Original) The system of claim 1, wherein the processor comprises an application-specific integrated circuit.
11. (Currently Amended) A heat sink lid configured to couple to a heat sink assembly that is thermally coupled to a processor, ~~and the heat sink lid adapted to such that leave~~ a portion of an air channel in the heat sink assembly is left uncovered, wherein the heat sink lid includes an edge configured to reduce turbulent flow of air that escapes from the air channel and flows across the edge, and the edge is substantially perpendicular to a direction of air flow within the air channel.
12. (Currently Amended) The heat sink lid of claim 11, wherein the uncovered portion of the air channel and the heat sink lid ~~is configured to~~ reduce air flow noise when the heat sink assembly operates to cool the processor.
13. (Currently Amended) The heat sink lid of claim 12, wherein the uncovered portion of the air channel and the heat sink lid ~~is configured to~~ reduce air flow noise by preventing the formation of a standing wave within an air channel of the heat sink assembly during operation.
14. (Currently Amended) The heat sink lid of claim 13, wherein uncovered portion of the air channel and the heat sink lid ~~is configured to prevents~~ prevent the formation of

the standing wave by preventing the reflection of an incident wave propagating within the air channel.

15. (Canceled)

16. (Canceled)

17. (New) The system of claim 1, wherein the heat sink lid is directly coupled to the walls.

18. (New) The system of claim 1, wherein the bottom surface is substantially flat.